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A mixed-methods evaluation of community pharmacy signposting service to a commercial weight loss provider

Title page separate from main document (4322F words)

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Shortened version of title

Evaluation of a community pharmacy signposting service to a commercial weight loss provider

Disclosure statement

JJ: no conflict

AA: no conflict

LA: no conflict

MW: no conflict

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Conflict of interest: None

Scottish Slimmers had no involvement in the design, analysis and reporting of this study.

MW was the principal investigator and contributed to the design, delivery and evaluation of the study. She contributed to the preparation and critical review of this manuscript.

Contribution of authors

JI was the research assistant working on the project and was responsible for the delivery of the study and the preparation of this manuscript.

LA advised on study design, supervised the analysis and contributed to the preparation and revision of the manuscript

AA advised on study analysis and revised drafts of this manuscript.

Abstract (243 words)

Objective

Community pharmacies could provide access for clients to commercial weight management organisations. We evaluated recruitment, signposting and outcomes of adults provided with free vouchers from community pharmacies to attend Scottish Slimmers' classes.

Design

Prospective cohort design with qualitative interviews with clients and pharmacy personnel. Scottish Slimmers collected weight and attendance data.

Setting

Pharmacies in Aberdeen City, Scotland.

Subjects

Clients were ≥ 18 years, body mass index (BMI) $\geq 30 \text{ kg/m}^2$.

Results

Ten of 23 pharmacies were recruited; eight successfully recruited clients. Of 129 clients recruited, 97 (75%) attended at least one class and 51 (40%) attended all 12 classes. Mean baseline client weight was 99.4kg (SD 17.5), mean BMI 37.8kg/m² (SD 6.0). After 12 weeks, mean weight change was -3.7% (last observation carried forward) or -2.8% baseline observation carried forward) for all 97 clients.

Client interviews indicated that many individuals would have not addressed their weight problems if this signposting service had not been available. They had positive attitudes towards the pharmacy signposting service attributed to the use of consultation rooms for privacy, receiving professional service from personnel and ongoing support and encouragement. The free provision of 12 week access facilitated participation. Service providers had positive attitudes and indicated their willingness to provide this service in future.

Conclusions

Community pharmacies could be used to increase access to weight management services with pharmacy personnel providing additional support to clients. Future provision of pharmacy signposting schemes should be evaluated on a larger scale with an economic evaluation.

Up to 4 keywords or phrases

Pharmacies, obesity, weight loss, 'signposting and consultation'

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Introduction

Overweight and obesity presents a major public health challenge to the current and future health of the population. The most recent Scottish Health Survey showed that 65% of adults in Scotland were overweight or obese. It is predicted that by 2030 over 40% of adults will be obese(1). Higher Body Mass Index (BMI) is associated with an increased risk of morbidity and mortality from a range of conditions including hypertension, heart disease, stroke, Type 2 diabetes and several cancers(2). In 2011, it was predicted that there were 100,000 obese adults in Grampian (a region of Scotland), 55,170 of whom are on the obesity register held through the Quality and Outcomes Framework (QOF) system(3).

In order to tackle this major public health problem, NHS Grampian sought to commission a feasibility study of a commercial weight management service for adults with a BMI $\geq 30\text{kg/m}^2$, to help them to achieve and maintain a healthier weight. The study was conducted in Aberdeen city centre and suburbs. Aberdeen is situated in the North East of Scotland.

Moved down [3]: Aberdeen is situated in the North East of Scotland. Of the 283 data zones in Aberdeen, nine are of the most deprived of all Scottish data zones (4). Less than 8% of the total city population live in data zones in the most deprived 20% of the Scottish population (4)

This study explored the feasibility of a community pharmacy based signposting service to a commercial weight management service (Scottish Slimmers (SS)). SS was founded in 1980 and has a proven record of enabling successful weight loss. It is a lifestyle based, group weight loss programme, which offers weekly meetings at community venues, a nutritionally balanced eating plan and advice on physical activity, aiming to produce moderate weight loss (5). We hypothesized that the provision of this signposting service through community pharmacies could increase access to this weight management service. Community pharmacies in Scotland are involved in a number of formal signposting initiatives e.g. optometry referrals (6) as well as out of hours services such as dental care included within the minor ailment service (7). They can also refer patients to other social care providers e.g. for child protection issues (8).

The Scottish population regularly attend community pharmacies with 85% of the population in Scotland use pharmacies in Scotland within a year (9).

The purpose of the weight management signposting study was to evaluate the feasibility of community pharmacists providing a weight management signposting service. Specifically, we wanted to: Consider the uptake of a pharmacy-based signposting service, compare the retention rates of clients signposted through pharmacy with other studies and the effect of different models of vouchers provision on retention and weight against each method of allocation.

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Further qualitative work was conducted in order to explore the effect of a pharmacy-based signposting service on client weight, clients' opinions regarding the provision of the signposting service and the pharmacy staffs' experience of providing a pharmacy-based signposting service.

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Methods

This feasibility study comprised a prospective cohort design and included qualitative interviews with clients and pharmacy personnel. Scottish Slimmers collected weight and attendance data.

The setting was community pharmacies in Aberdeen City, Scotland. The study was conducted between November 2013 and August 2014. Ethical approval was given by the College of Life Sciences and Medicine Ethics Review Board, University of Aberdeen.

Pharmacies

Using the local Health Board register, community pharmacies in Aberdeen City were identified which were in close proximity (20 minutes' walking distance) to SS classes. To be eligible to participate, pharmacies were required to have a private consultation room. Each pharmacy was provided with promotional materials relating to the signposting service. Pharmacies received a payment of £50 to participate as well as £5 per client recruited.

Client Recruitment

Each pharmacy had a recruitment target of 20 clients. Inclusion criteria for clients were ≥ 18 years and $\text{BMI} \geq 30 \text{ kg/m}^2$. Women who were pregnant, adults with eating disorders, or people attending community or commercial weight management groups in the previous three months were not eligible.

All members of pharmacy staff were trained to recruit clients. A researcher (JI) provided on-site training to the responsible pharmacist and available staff. The pharmacists then trained the remaining staff who were unavailable. Training involved the process for recruiting clients, measuring the clients' BMI, voucher allocation and data collection.

Once trained, pharmacy staff approached potentially eligible individuals if they: purchased weight loss products, or; asked for advice about weight loss, or enquired about the study as a result of promotional information displayed in the community pharmacies.

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1. Purchased weight loss products, or; Enquired about the study as a result of promotional information displayed in the community pharmacies.

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2. Asked for advice about weight loss, or;

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All clients who expressed an interest in participating were provided with an information sheet after discussion with a member of pharmacy staff regarding whether there was a suitable SS class they could attend. Potential participants had their weight and height measured to calculate their BMI. If their BMI was $\geq 30\text{kg/m}^2$, the client was invited to participate. Clients were advised that if they had any concerns regarding their health they were to contact their General Practitioner (GP) regarding their suitability to participate. Clients with a BMI $< 30\text{kg/m}^2$, thus not eligible for this study, were advised of the nearest SS class.

Voucher allocation was initially randomised, by client uptake, to explore what effect, if any, this would have on class attendance with the hypothesis that more frequent contact with the pharmacy might achieve more consistent class attendance. As such, consecutive clients were offered vouchers in one of three ways:

- 12 vouchers provided at recruitment visit
- weekly vouchers issued every week for 12 weeks
- four vouchers issued on three occasions

If clients were unable to collect vouchers on a weekly or monthly basis, however, they were given all 12 vouchers at the recruitment visit. Voucher allocation was recorded in the client pharmacy log by pharmacy personnel. The original recruitment period was from April 2014 - July 2014. However, due to lower than anticipated recruitment from some pharmacies, the recruitment period was extended until the end of August 2014, with some pharmacies agreeing to recruit more than 20 clients (Figure 1).

Data Sources

Quantitative data sources

Client Characteristics

Pharmacy staff recorded clients' names, addresses, telephone contact details, weight, height, voucher serial numbers, date of collection of vouchers and obtained client consent. These details were recorded in the client pharmacy log which was stored securely. A record was also kept of the number of clients who declined participation and, if known, the reason for refusal. Clients who wished to think about participation were invited to return later. If they did not return within the duration of the study, they were categorised as a "refusal".

Weight measurements & attendance at SS classes

Scottish Slimmers also recorded client contact details, calculated BMI, dates attended, client weight and voucher serial numbers. These details were stored securely by the SS co-ordinator.

NHS Grampian personnel liaised with SS and the research team to facilitate data collection and provision. The Scottish Index of Multiple Deprivation (SIMD) (<http://www.gov.scot/Topics/Statistics/SIMD>) (4) (Scottish Datazone version) was calculated using each client's postcode. Of the 283 data zones in Aberdeen, nine are of the most deprived of all Scottish data zones (4). Less than 8% of the total city population live in data zones in the most deprived 20% of the Scottish population (4). The intention of this study was to focus on pharmacies in deprived areas in an attempt to reach clients. The SIMD value for a pharmacy will not necessarily reflect client SIMD and this is particularly true for city centre pharmacies with high customer footfall. Despite these limitations, over half the clients who participated were from more deprived areas in Aberdeen city.

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Analysis

The quantitative data derived from clients and pharmacies were entered into an SPSS database (Version 22) with a 10% accuracy check performed by a member of the department administrative staff (HR). The data were analysed using descriptive statistics. We analysed weight change data with last observation carried forward (LOCF) (10) and baseline observation carried forward (BOCF) (11) to take account of missing data.

Quantitative Outcome Measures

- The quantitative outcome measures included investigating the number of clients who were offered/requested the service and who consented to use the service, alongside the persistence of client attendance at Scottish Slimmers' classes, as well as the weight changes of clients referred from the service.

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Qualitative data sources

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Client Experience of the Signposting Service

Telephone interviews were conducted with clients based on voucher allocation. A random sample of clients was selected (using a random number generator (12)) from each of the three voucher allocation methods and those contactable by telephone were interviewed to explore their attitudes and opinions about the future delivery of the service and also their experience of joining the study and of the signposting service were also explored.

Written consent to participate in an interview was obtained at the point of recruitment. Verbal consent was sought prior to starting the interview and was recorded with each client's consent.

Pharmacy Staff Experience of the Signposting Service

Pharmacy personnel were given the option of either attending a focus group or to participate in a telephone interview to explore their experience of the service and to obtain suggestions for future service delivery. The intention was to derive evidence from each of the participating pharmacies.

Qualitative Outcome Measures

- Client experience of, and satisfaction with, the signposting service.
- Pharmacist and pharmacy support staff experience of, and satisfaction with, the provision of the service.

Analysis

The qualitative data were digitally recorded and transcribed verbatim by a research secretary and checked for accuracy by the researcher (JI). Thematic analysis of the transcripts was performed using the themes included in the topic guide, as well as newly emergent themes by JI.

Results

Of the 23 community pharmacies invited, 10 consented to participate, five of which were situated in deprived areas (SIMD score 1-2) (Table 1). Of the 145 clients enquiring about the service, 16 were excluded due to age, BMI or health reasons (Figure 1). Of the 129 clients recruited, 97 (75%) attended at least one Scottish Slimmers' class.

Eight of the 10 pharmacies recruited clients to the service. Of these eight pharmacies, three recruited less than 10 clients whilst the remainder either met or exceeded the original recruitment target (n=20). In all but one pharmacy, the weight management service was delivered by either the pharmacist or other pharmacy staff i.e. dispensing technicians, pre-registration students or a pharmacy manager. In the remaining pharmacy, the service was delivered solely by non-pharmacist personnel i.e. Pharmacy counter staff. Client demographics per pharmacy are presented in Table 2. Most participants were female; 6% were male. Most clients who attended the SS classes were between 40-70 years of age and over half of attendees (53%, n=51) lived in more deprived areas of Aberdeen. The majority of clients (63%, n=61) attended a class within seven days of recruitment. Most clients had visited the pharmacy before; but for six clients recruitment occurred on their first visit to the community pharmacy. Nearly 40% (n=38) of clients who attended classes had visited the pharmacy to ask for advice regarding weight loss or to sign up for the service. Most clients [63% (n=58)] opted to receive all 12 vouchers at one time, with 28.3% (n=26) and 8.7% (n=8) opting for monthly and weekly supply, respectively.

Small chain (<10) pharmacies recruited more clients (n=39) from deprived areas. Independent single outlet (ISO) pharmacies recruited more clients from more affluent areas (n=20). Over 50% (n=51) of clients lived in areas with SIMD scores of 1 or 2 (i.e. most deprived areas).

The median number of classes attended was 12 (inter-quartile range: 6.5, 12). Fifty-one clients (41%) attended all 12 classes. Women were more likely to attend 12 classes compared with men: 68 (58%) women versus 4 (33.3%) men.

The mean baseline weight of clients was 99.4kg (SD 17.5) and their mean BMI was 37.8kg/m² (SD 6.0). All of the clients' BMIs calculated at their community pharmacy were ≥ 30 kg/m², however, four clients had a BMI < 30 kg/m² based on their measurements taken at an SS class. For the 97 clients who attended at least one class, mean weight change calculated using LOCF (last observation carried forward) was -3.70kg (SD 8.43) over the 12 week period representing mean weight loss of -3.7% of initial weight (Table 3). The mean weight change using BOCF (baseline observation carried forward) was -2.86kg (SD 8.43) and this represented -2.8% of initial weight. Additionally, 34% (n= 35) of clients lost 5% of their body weight and four lost 10% over 12 weeks.

Client interviews

Twenty clients were randomly selected for a telephone interview. Of the 13 clients interviewed, eight had received all their vouchers at the start, four had received their vouchers monthly and one client obtained their vouchers on a weekly basis. Three of the clients interviewed had never attended classes. The 10 remaining clients had varying attendance. Six clients attended 12 classes and continued to attend classes (self-payment). One client mentioned that she had completed the 12 free classes but couldn't afford to attend further classes. Three clients were still attending classes (using their free vouchers) and indicated that they intended to complete all 12 classes. Illustrative quotes are presented in table 4 for clients' attitudes and opinions of the service. Quotes include a code which incorporates each client's identification number, voucher allocation method, weight change and interview quote line number.

Awareness of the scheme

Awareness of the scheme was mostly derived through promotional materials displayed in the pharmacies:

Three clients indicated they had become aware of the study through word of mouth from family or friends. The majority of clients stated that they signed up for the study immediately. One male client stated he needed some time to think about it before he signed up.

Decision to use service

Reasons for deciding to take part in the scheme were influenced by other health problems. Specific health issues included: leg ulcers, diabetes, raised blood sugar levels, increased blood pressure, heart problems and arthritis.

Facilitators & barriers

The free availability of the classes appeared to be an incentive to enrol in the study. For some clients, their decision to participate was a spur of the moment decision (C8-9 (Monthly, -8.6kg) and others spoke about peers (family members, friends) as an incentive to participate.

Reasons for non-attendance

At the time of interview, three clients hadn't attended a class. The reasons for non-attendance ranged from changes to personal circumstances, illness or holidays to friends they had signed up with but had not attended classes.

Experience of service

Some clients were unsure of who they had initially spoken to regarding the study. The majority thought they had initially spoken to pharmacy counter staff. Two clients had been given appointments to return to discuss with the pharmacist and enrol in the study. Privacy was mentioned by two clients within the context of their experience of the service. One client stated that she wouldn't have liked to ask or discuss the study if there had been other people waiting in the pharmacy. Most clients reported that they had been taken into a consultation room to discuss the study and to be weighed to assess their eligibility for the study. These clients indicated that this was a satisfactory arrangement. One client stated that if there hadn't been a private area she wouldn't have taken part in study. Clients commented that pharmacy staff were supportive of their weight management attempts.

All of the clients interviewed who had attended classes had lost weight, were complementary about the classes and appeared satisfied with their weight loss. There were comments on how encouraging and good the leaders were as well as the useful information they received. The majority of clients interviewed were happy to discuss their weight with pharmacy staff, primarily as they had been taken into the pharmacy consultation room. Another client indicated

that she was initially embarrassed discussing her weight and there were other comments of 'nobody being comfortable' discussing their weight. All clients interviewed considered the pharmacy staff to be either very good or excellent in terms of professionalism.

Voucher Allocation

Voucher allocation varied across the clients interviewed. There appeared to be a preference for vouchers to be allocated less frequently than weekly i.e. monthly or all at once.

When clients were asked if they intended to carry on with the classes, the majority of them stated that they would.

Opinion of Service

All interviewed clients considered the signposting service to be a good idea. There were comments about clients being happy to approach pharmacy staff and it being a convenient service. A large number of clients interviewed commented on the fact it was a free service. The cost of classes was discussed by clients. Two clients had negative comments regarding the service and this was about having to pay for classes, after the initial 12 week service, even if they didn't attend.

Improvements to signposting service

There were a few comments on how the service could be improved. One client suggested that more members of staff could have received training and several clients commented on how busy the pharmacy was and the need for more staff. Two clients thought that there could have been more leaflets available to take away and read. A few clients thought more vouchers could be allocated if their BMI was rated as obese.

Further comments

One client mentioned that she had not considered going to her GP about her weight. The majority of clients stated that they probably wouldn't have done anything about their weight and just carried on with their current eating habits, if this service had not been available.

Pharmacy personnel interviews

Five pharmacists and two dispensing technicians (from seven pharmacies) participated in a telephone interview.

Reason for participation

Reasons for participation included the importance of supporting research alongside the fact that obesity is a major health issue. One pharmacist commented on the 'local' issue of service provision and also the idea of being able to help people with their weight management.

Service delivery

Pharmacies used different methods to deliver the service and some operated an appointment system. Some pharmacies considered appointment systems to be difficult due to unpredicted increases in workload.

In most instances, clients approached the pharmacy staff, however one staff member mentioned having discussion with a client about weight loss medication and informing them about the service. In some pharmacies, the counter staff completed the entire consultation and they were confident to do this. Two pharmacists spoke of training all the pharmacy staff regarding the study.

Voucher allocation

Interviewees did not hold strong views regarding the different methods of voucher allocation.

Promotional Material

There were positive comments regarding the promotional material.

Impact on pharmacy workload

The majority of pharmacy staff reported that the signposting service was not time consuming with most estimating around 10 minutes for the initial consultation. The administrative packs for clients also helped to reduce workload. One pharmacist mentioned that 20 clients was a manageable number, but if it were to be expanded to more people there would need to be an appointment system.

Training

All the pharmacists and pharmacy staff considered the training to be sufficient. When asked if individual staff training would have been a better option, comments were varied and some interviewees thought it would have been a good idea, but others did not consider it necessary. One pharmacist commented that if it was to be rolled out as an NHS service, it would be better to have a training evening.

Payment

Most pharmacists considered that the payment offered was adequate whilst one commented that it did not compare favourably with another service that they provided.

Improvements to the signposting service

One pharmacist thought it would be good to inform the client's GP of their participation in the service. There were two additional comments from pharmacists that the BMI chart utilised in the study was too low i.e. did not provide higher BMI scores e.g. $>40\text{kg/m}^2$ as a lot of the clients' BMIs were off the scale.

Success of service

Five out of seven of the pharmacy staff interviewed considered that the study had been a success because they had signed up several clients. Interviewees also spoke of clients coming back to the pharmacies to inform tell them how they were getting on. One staff member mentioned that clients seemed to like the idea that they were not limited to attending one class in a specific location, they could choose to attend classes in other parts of the city.

Of the two pharmacies where no clients were recruited, one pharmacist thought it was because they couldn't promote the service enough i.e. it was company policy to only display certain promotional material in prominent places, such as window displays. The other pharmacist thought they were unsuccessful due to the fact that they were unable to approach clients and none of their customers appeared interested.

Willingness to provide service in future

Pharmacy staff appeared positive and willing to provide the service in the future. The interviewees from two pharmacies that recruited no clients stated they would be happy to

provide the service in the future, although they would have to consider alternative promotional strategies.

Discussion

This is the first published evaluation of a community pharmacy based signposting service to a commercial weight management organisation. This feasibility study is novel in that it assesses community pharmacies as a means of referring people who are obese to a weight management service. The service is also free of charge which allows inclusion of all customers. The prospective, mixed methods approach provided a holistic evaluation of this service and it was found that community pharmacy customer did find this method of being referred to a commercial slimming organisation acceptable and is therefore a feasible option for health care governing bodies to consider

Limitations of the study

The study main limitations stem from the fact that it was a small scale uncontrolled case study run over a short period of twelve weeks; therefore the results will lack generalisability. Community pharmacies were conveniently recruited from within Aberdeen city therefore results will not be representative of the whole Scottish population, as more rural communities have not been included. Pharmacy personnel were unable to proactively recruit clients (due to constraints placed by the College Ethics Review Board) except in limited circumstances whereby customers enquired about weight loss advice or products and, as such, service uptake was mostly dependent upon customers approaching pharmacy staff. Time constraints also meant that clients from different possible scenario groupings i.e those who only attended a few SS meetings were not interviewed.

Uptake of pharmacy-based signposting service

Variation in client recruitment across pharmacies could be partially attributed to variable footfall. In addition, the non-recruiting pharmacies were situated in a city centre where customers might be more transient and possibly have less of a relationship with pharmacy staff. Two thirds of participating clients visited their community pharmacy at least once per month; this may indicate that an existing relationship with a pharmacy may be beneficial in achieving service uptake (13). Men use pharmacies much less frequently than women (14) and only six male clients were recruited to this study.

Eligible clients were required to have a BMI $\geq 30 \text{ kg/m}^2$. Discrepant BMI values occurred with four clients between pharmacy and SS personnel, with the latter estimating BMI values

<30kg/m². This could be due to measurement error and/or it might be explained by the lag time between clients being recruited at pharmacies and the actual date they went to their first SS class i.e. clients might have initiated weight loss prior to attending their first SS class.

The majority (63%) of clients were given all 12 vouchers at baseline. Clients who were interviewed were not enthusiastic about collecting vouchers weekly, but were more supportive of monthly collection.

Retention

Retention at SS classes was good with 51 (41%) clients attending all 12 classes. This rate compared favourably with previous studies, including studies of referring from primary care organisations (15,16) and is considerably higher than community pharmacy studies evaluating standalone weight management service(14)(17).

Effect on clients' weight

The mean weight change using BOCF (baseline observation carried forward) achieved by clients across their 12 SS classes was -2.86kg. This equates to losses of between 2.8%. These results are comparable with similar evaluations i.e. signposting from a primary care organisation to a commercial weight management organisation (15,16) and are better than standalone weight management methods(14). Peer support has been shown to facilitate adherence to healthy eating plans (18) and clients in this study mentioned support from pharmacy staff as helping with their weight management. The additional support that pharmacy staff provided, whether formal or informal, was highlighted by clients during interviews and may be an advantage of community pharmacies compared with other primary health care providers whose interaction might be more time-restricted.

Clients' opinions regarding the provision of the signposting service

All clients interviewed had positive attitudes towards the signposting service and the SS classes (although three had not attended a class at the time of their interview). Interviewees indicated that they were aware they were overweight and some perceived that this was having a negative impact on their health. Despite this, the majority of interviewees stated they would not have taken action about their weight if they had not participated in this study. Two interviewees who had not attended a class had heard of the signposting service from a friend or family member,

who had suggested that they participate. The lack of engagement with the service by these clients may have been due to a lack of readiness to address their weight (19).

Privacy was important to all interviewees and all were satisfied with their consultations taking place in a pharmacy consultation room. A number of clients interviewed indicated that further free provision of SS vouchers should be considered for those who had not reached their target weight or healthy BMI.

Pharmacy staff experience of providing a pharmacy-based signposting service

The community pharmacy staff interviewed had very positive attitudes towards the study and indicated they would be willing to provide this service in future. The signposting service was not perceived to have a substantial impact on workload.

In conclusion, this study demonstrated the feasibility of providing community pharmacy based signposting to a commercial weight management service. The signposting service was acceptable to both service users and providers. The effectiveness and cost effectiveness of this service needs to be evaluated to determine whether it is viable adjunct to existing weight management services for obese patients.

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Table 1 Pharmacy characteristics

Pharmacy	Type	SIMD	Location	Personnel who delivered signposting service	No. of clients excluded	No. of clients recruited	No. of clients attending a minimum of one SS class	No. of clients with SIMD score between 1-2
09	Independent single outlet	5	City centre	Pharmacist	0	0	0	0
10	Large multiple	2	City centre	Pharmacist/pharmacy staff		1	1	0
03	Independent single outlet	2	City suburb	Pharmacist	2	4	1	0
04	Small chain	1	City suburb	Pharmacist/Pre reg	0	5	3	3
05	Small chain	3	City suburb	Pharmacist	3	8	7	4
02	Large multiple	5	City suburb	Pharmacist/Pharmacy manager	3	20	18	2
07	Independent single outlet	1	City suburb	Pharmacist/Dispensing technician	0	20	17	14
06	Small chain	1	City suburb	Pharmacist/staff	1	21	15	9
08	Large multiple	5	City suburb	Pharmacy staff	5	25	16	6
01	Small chain	3	City suburb	Pharmacist/Pre-registration pharmacist	2	25	19	13

SS: Scottish Slimmers. SIMD: Scottish Index Multiple Deprivation (SIMD 1 most deprived, SIMD 5 most affluent), Small chain > 10 Pharmacies. Large multiple > 30 Pharmacies

Table 2 Client Characteristics at each Pharmacy

Pharmacy	Gender		SIMD		Age (years)						Lag time (days)					How often visit Pharmacy						Reason for Pharmacy visit			
	M	F	1-2	3-5	18-30	31-40	41-50	51-60	61-70	>71	0-7	8-14	15-21	22-30	>31	1 st visit	Daily	Fortnightly	< once per month	Once per month	Once per week	Advice on weight loss	Collect prescription	Sign up to SS	Purchase another product
01	1	18	13	6	1	5	4	7	2	0	7	1	3	5	3	2	0	0	6	4	7	3	5	5	6
02	3	15	2	16	3	2	2	2	8	1	10	4	1	2	1	1	0	0	2	9	6	4	9	3	2
03	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04	1	2	3	0	0	0	2	0	1	0	3	0	0	0	0	0	0	0	0	3	0	2	1	0	0
05	0	7	4	3	1	0	2	4	0	0	4	0	0	1	2	1	0	0	0	6	0	0	2	0	1
06	0	15	9	6	2	0	5	5	3	2	9	3	1	0	2	0	0	0	5	6	4	0	8	5	0
07	1	16	14	3	0	2	2	5	6	2	12	2	2	1	0	1	2	0	3	8	3	5	6	2	0
08	0	16	6	10	2	3	3	5	3	0	15	0	0	0	1	0	0	1	5	7	3	1	0	0	4
09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
10	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1

Table 3 Weight change characteristics of clients attending SS classes over 12 week period (n=97) (129 recruited but 97 attended classes)

Weight change characteristic	LOCF (Last observation carried forward)	BOCF (Baseline observation carried forward)
Weight change Mean (SD) kg	-3.70 (8.43)	-2.86 (8.43)
Mean weight change %, (SD)	-3.7 (3.69)	-2.8 (3.65)

Table 4 Clients' attitudes and opinions of the service

Theme	Quote
Awareness of scheme	C2-1 (All, -6.8kg) <i>...I went into the local chemist, to pick up my prescription, and saw the leaflet there and I thought, right, okay, let's go for it, let's just take the bull by the horns and let's do it.</i>
Decision to use service	C2-3 (All,-5.2kg) <i>.....I did it first and foremost, because I am overweight, and I just felt that the time was right for me to do it then. I had a few health problems, .. I had an ulcer on my leg ... and I thought no, this is the time to do it, and lets go for it. I saw that it was NHS and it was 12 weeks free, and I thought let's just do it now.</i>
Facilitators	C3-7 (Monthly,-9.5kg) <i>...I've been to Scottish Slimmers and slimming clubs, eh years and years ago, and I just thought, every time I try to do it myself, eh you always fall back, .. and I just, when I saw it there, and also I'll tell you what it was, because the first 12 weeks were free, that was another incentive to do it.</i>
Reasons for non-attendance	C9-6 (All, non-attender) <i>I was going through a bad patch with my partner, .. stress, not in the right head space and then I got the flu thing that was going about, em, it's always next week, I need somebody to hold my hand for the first time as well, it's quite hard.</i>
Experience of service	C8-24 (Monthly,-8.6kg) <i>it wasn't like a consultation, .. it was how you getting on ..actually the girl saw me today, I was in getting a prescription, and she said how you getting on with your, and I'd told her what I'd lost, and she was quite delighted.</i> C2-14 (All,-5.2kg) <i>.....she was very professional, she was very good, in the way she said, look I'm sorry, I have to ask this, I have to know, but she was very, very good, she, she really made me feel at ease, I didn't feel at any time that I was under any kind of pressure.</i>
Voucher Allocation	C2-19 (All, -5.2kg) <i>I was very happy with how I got my vouchers, because it's like every week, and I just think I am a working mum, and it would have been too much of a palaver to be getting off the bus, going in, getting my voucher, getting back on the bus, going to my slimming class.</i>
Cost of service	C8-27 (Monthly, -8.6kg) <i>It's convenient, it was free, .. eh basically it was an incentive to get started, ...</i>
Improvements to signposting service	C8-29 (Monthly,-8.6kg) <i>..maybe if there had been a few leaflets lying about, might encourage more people just to pick up the leaflet and go away with it.</i> C6-24 (All, -6.3kg) <i>..if your BMI is still above the 30, if you could, if it would be possible to offer a bit longer, the tokens.</i>
Other	C1-33 (All, -6.8kg) <i>.... I would have never thought of going to my GP, .. you know, I sort of needed to lose weight type thing, ..you prioritise your GP for other things, ...</i>

Theme	Quote
Reason for participation	P4-1.. <i>we thought it may, obviously assist our local patients.</i>
Service delivery	P2-2 <i>..... the staff would do the ..initial consultation .. at the health counter, ..and then they would usually pass it forward to, usually myself or another pharmacist.</i> P6-2 <i>... we trained all four of them up (pharmacy staff), so that they were aware of what the paperwork they needed to complete, the pharmacist can't do all of it, you know.</i>
Voucher allocation	P7-8... <i>I didn't mind how we gave out the vouchers, but the customers definitely preferred to have them all at once.</i>
Promotional material	P2-15 <i>I thought they were really good, that was what brought the people in, we put one out at like the front door and we put some up beside the pharmacy.</i>
Impact on pharmacy workload	P2-8 <i>.if it was getting rolled out to a lot of patients, .that would need to be taken into account, because we ended up with about 20 patients, which wasn't too bad, em, because obviously the initial appointment bit took a bit longer, but when they were coming in to collect their vouchers and just having a quick chat, ...once you had them registered, it wasn't difficult.</i>
Training	P1-12 <i>we were just signposting, you know, sending people to the right place, so yeah, no the training was fine...</i>
Payment	P7-5 <i>Slightly low as paid £30 for Stop Smoking consultation.</i>
Improvements to signposting service	P2-9 <i>how it would be communicated between ..obviously like the community pharmacy and maybe the doctors so that they knew the patients were, you know, doing the trial</i>

Figure 1.

